



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,789	03/30/2001	Nikolas Bergerhoff	449122004000	3534

7590 01/17/2006

MORRISON & FOERSTER  
2000PENNSYLVANIA AVE,NW  
WASHINGTON, DC 20002-1888

EXAMINER
----------

TSE, YOUNG TOI

ART UNIT	PAPER NUMBER
----------	--------------

2637

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/820,789	<b>Applicant(s)</b> BERGERHOFF, NIKOLAS	
	<b>Examiner</b> YOUNG T. TSE	<b>Art Unit</b> 2637	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on November 22, 2005. These drawings are accepted.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the reference sign "60" is not shown in Figure 4 as mentioned on page 6, line 21 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities: in the amendment to the specification filed on November 22, 2005: page 6, lines 15 and 18, "wave train" should be "wave train 54". Appropriate correction is required.

***Claim Objections***

4. Claims 1-8 are objected to because of the following informalities: in claim 1 (line 3) and claim 3 (line 4), the word "are" should be "is"; wherein the dependent claims 2 and 4-8 depend from claims 1 and 3. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 2 recites the limitation "the signal being subjected to reshaping" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

7. The indicated allowability of claims 1-8 is withdrawn in view of the newly discovered reference(s) to Mabuchi et al., Bjork and Quist et al.. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mabuchi et al. (US Patent 4,007,455) "hereafter Mabuchi" (cited previously).

With respect to claims 1 and 3, Mabuchi discloses a radio control transmitter in Figure 1 for transmitting a rectangular wave to a radio control receiver in Figure 3 through a wireless communication channel. In Figure 1, the radio control transmitter comprises an encoder 1 having an oscillator for generating a rectangular wave (a) (see Fig. 2A), mono-stable multivibrators 7-1 through 7-3 and variable resistors 8-1 through 8-3 for selecting pulse widths in the responsive mono-stable multivibrators 7-1 through 7-3, diodes 9-1 through 9-3, and differentiating circuits 10-1 through 10-3 (see Figs. 2B-2C), the output of the encoder 1 provides a reshaping signal (d) (see Fig. 2D) to the wireless transmission channel in such a manner that at least one of reproducibility and transmissibility is exacerbated through the block elements 2-5 and the antenna of the radio control transmitter. The radio control receiver comprises at least a detector 12, which supplies an output signal (h) (see Fig. 4B) when reshaping is present.

With respect to claims 2 and 4, the radio control transmitter includes the encoder 1 which activates and reshapes the rectangular wave in a predetermined manner in time and the radio control receiver includes a comparison device 12 which checks whether the received signal is preemphasized in the predetermined manner in time.

With respect to claim 6, the encoder 1 includes at least one diode 9-1, 9-2, or 9-3, which is included in a line between the oscillator 6 and the antenna.

With respect to claim 8, the encoder 1 includes a series circuit, comprising a diode 9-1, 9-2, or 9-3 and a differentiation element 10-1, 10-2 or 10-3, in a line between the oscillator 6 and the antenna.

10. Claims 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Bjork (US Patent 5,384,534).

With respect to claim 3, Bjork discloses an indicating system in Figure 2 for measuring movement of a material between a transmitter circuit and a receiver circuit. In Figure 2, the transmitter circuit comprises a device 12 which may be a shaft or a gear with very shallow cogs or teeth 34, a sensor 14 has a magnetic pole piece 36 along with coil 38, a power pickoff circuit 16 and a pulse-forming network 18 for providing a reshaping signal of the electric signal from the sensor 14 to a wireless transmission medium or light waveguide 22 in such a manner that at least one of reproducibility and transmissibility is exacerbated (see column 2, lines 8-46). The receiver circuit comprises a photo detector 24 which detects the light waveguide and supplies an output signal to an electronics circuit 26 having a counter 28 and a processor 32, which determines counter signal various parameters of gear or shaft 12 such as speed, acceleration and/or position (see column 3, lines 15-27).

With respect to claim 5, the wireless transmission medium of the light waveguide 22 is taking place by means of electromagnetic waves.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bjork in view of Quist et al. (US Patent 6,199,018 B1) "hereafter Quist".

As discussed in paragraph 10 above, Bjork does not explicitly show or suggest that the receiver circuit comprises a sensor which converts a magnetic flux density or a magnetic field strength to an electrical voltage or an electrical current.

Quist discloses a related transmission/reception circuit in Figure 2B comprising a microprocessor 28 receives as an input the output signals from an electromagnetic flux sensor 36 that includes a flux sensing device and a conditioning amplifier. The flux sensor 36 should be positioned appropriately with respect to an associated machine 11 to detect the magnitude of the flux existing in the stator of the machine 11. The flux sensor 36 allows for a determination of the rotor speed and the load of the machine 11 (see column 8, line 63 to column 9, line 6). The processor 28 is coupled to a communication board 26, a modem 30 or an RF transceiver 32 for further processing of the processed signal.

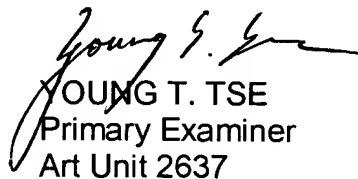
Therefore, it would have been obvious to one of ordinary skill in the art to use a sensor in Bjork's receiver circuit that the processor circuit 32 is capable of processing a detected or sensed electromagnetic flux density or strength as taught by Quist and later

to determine an electrical voltage or current by other circuitry in order to determine counter signal various parameters of gear or shaft such as speed, acceleration and/or position of a motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Thursday and alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The Central FAX Number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2637